

Attorney's Docket: 2000DE441DSerial No.: 10/606,095Art Unit 1714Response to Office Action, Dated 11/14/2006

Please amend the Specification as follows:

Please amend paragraph [00100] as follows:

**[00100]** In order to assess the low-temperature properties, the pour point of the mixtures according to the invention was measured in accordance with ISO 3016 (Table 1) ~~and the cloud point was measured in accordance with ISO 3015 (Table 2).~~ The additive mixtures according to the invention were then stored for a number of days at various temperatures and subsequently assessed visually (Tables 3 to 5). C denotes comparative examples:

Please delete Table 2 and related footnotes on page 37:

**Table 2: ~~Cloud points of the additives according to the invention~~**

Example	Composition (parts by weight)						Cloud point
	A1	A2	B1	B2	B3	B4	
C8*	100						-27.0
28*	99.9995		0.0005				-33.0
29*	99.9995					0.0005	-30.5
30*	99.998		0.002				-33.5
31*	99.998					0.002	-33.5
32*	99.995		0.005				-31.0
33*	99.995					0.005	-32.2
34** (B5)	99.998		0.002				-29.0
35** (B6)	99.998		0.002				-31.0
36** (B7)	99.998		0.002				-35.5
37** (B8)	99.998		0.002				-37.0

\* These examples were obtained with a 50% by weight formulation of the fatty acid in solvent naphtha.

\*\* These examples relate to mixtures of A1 with in each case 2000 ppm of B5 to B8 and are obtained with a 50% by weight formulation of the fatty acid in solvent naphtha.

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Please Amend Table 8 on page 42 as follows:

Table 8: Wear scar in Test Oil 1

Example	Additive	Wear scar	Friction
C15	none	555 $\mu\text{m}$	0.33
63	100 ppm <del>acc. to Ex. 37</del> A1 + 2000 ppm B8	385 $\mu\text{m}$	0.18
64	100 ppm A1+ 150 ppm B4	381 $\mu\text{m}$	0.18
C16	100 ppm A1	421 $\mu\text{m}$	0.18
C17	150 ppm B4	549 $\mu\text{m}$	0.34

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This listing of claims will replace all prior versions, and listings of claims in the application:

1.(Deleted)

2.(Deleted)

3.(Deleted)

4.(Deleted)

5.(Deleted)

6.(Deleted)

7.(Currently Amended) A low-temperature-stabilized solution comprising from 1 to 80% by weight of an organic solvent and a low-temperature-stabilized additive comprising:

A) a fatty acid mixture of

A1) from 1 to 99% by weight of at least one saturated mono- or dicarboxylic acid having from 6 to 50 carbon atoms,

A2) from 1 to 99% by weight of at least one unsaturated mono- or dicarboxylic acid having from 6 to 50 carbon atoms

and

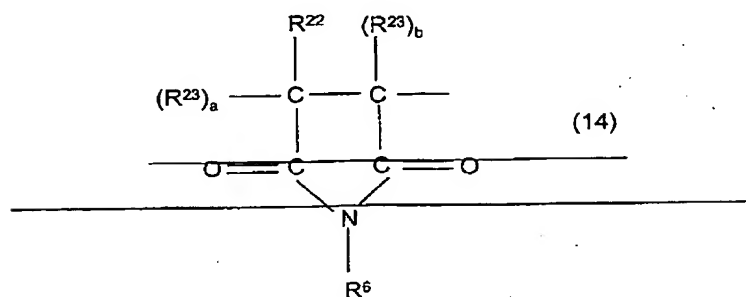
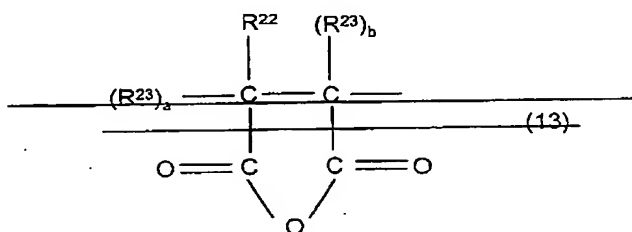
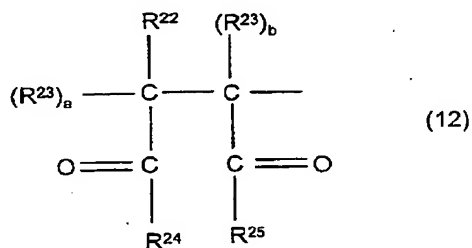
B) at least one polar nitrogen-containing compound which is effective as paraffin dispersant in middle distillates, in an amount of from 0.01 to 90% by weight, based on the total weight of A1), A2) and B),

wherein the fatty acid mixture of A1) and A2) has an iodine number of at least 40 g

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of I / 100 g, and said at least one polar nitrogen-containing compound B) is a terpolymer comprising:

- I) 20 – 80 mol% of a divalent structural unit selected from the group consisting of formula 12~~[[,]]~~ 14, 13, and mixtures thereof,

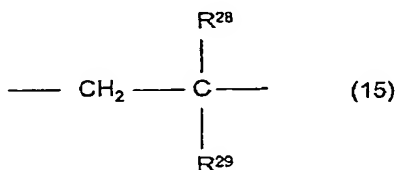


where

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$R^{22}$  and  $R^{23}$ , independently of one another, are hydrogen or methyl,  $a$  and  $b$  are zero or one and  $a + b$  is one,  $R^{24}$  and  $R^{25}$  are identical or different and are  $[-NHR^6,]$   $N(R^6)_2$  or  $-OR^{27}$  or a combination thereof,  $R^{27}$  is a cation of the formula  $H_2N(R^6)_2$   $[[\text{or } H_3NR^6]]$ , and  $R^6$  is  $C_8-C_{36}$ -alkyl,  $C_6-C_{36}$ -cycloalkyl,  $C_8-C_{36}$ -alkenyl,

II) 19 - 80 mol% of a divalent structural unit of formula 15



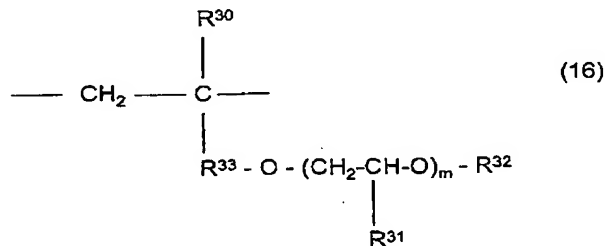
in

which

$R^{28}$  is hydrogen or  $C_1-C_4$ -alkyl, and

$R^{29}$  is  $C_6-C_{60}$ -alkyl or  $C_6-C_{18}$ -aryl, and

III) 1 - 30 mol% of a divalent structural unit of formula 16



in which

$R^{30}$  is hydrogen or methyl,

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$R^{31}$  is hydrogen or  $C_1$ - $C_4$ -alkyl,

$R^{33}$  is  $C_1$ - $C_4$ -alkylene,

$m$  is a number from 1 to 100,

$R^{32}$  is  $C_1$ - $C_{24}$ -alkyl,  $C_5$ - $C_{20}$ -cycloalkyl,  $C_6$ - $C_{18}$ -aryl or  $-C(O)-R^{34}$ ,

where  $R^{34}$  is  $C_1$ - $C_{40}$ -alkyl,  $C_5$ - $C_{10}$ -cycloalkyl or  $C_6$ - $C_{18}$ -aryl.

8.(Deleted)

9.(Deleted)

10.(Canceled)

11.(Currently Amended) A method for improving the lubrication properties of low-sulfur middle distillates having a sulfur content of up to 0.05% by weight, said method comprising at a temperature of 0°C or below adding to said low-sulfur middle distillates an additive comprising:

A) a fatty acid mixture of

A1) from 1 to 99% by weight of at least one saturated mono- or dicarboxylic acid having from 6 to 50 carbon atoms,

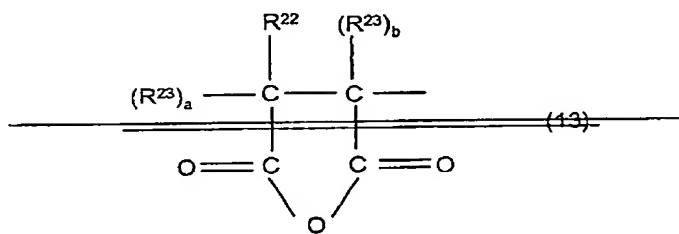
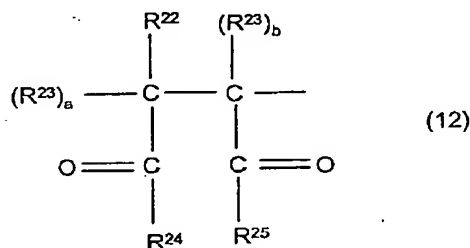
A2) from 1 to 99% by weight of at least one unsaturated mono- or dicarboxylic acid having from 6 to 50 carbon atoms, and

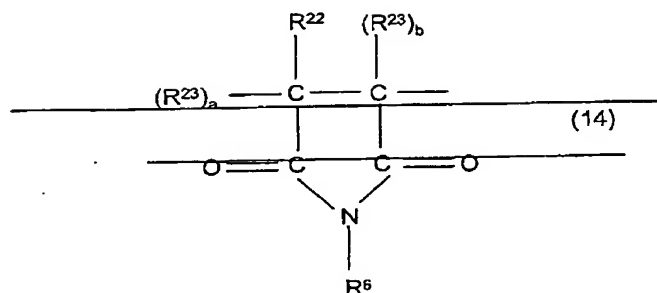
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B) at least one polar nitrogen-containing compound which is effective as paraffin dispersant in middle distillates, in an amount of from 0.01 to 90% by weight, based on the total weight of A1), A2) and B),

wherein the fatty acid mixture of A1) and A2) has an iodine number of at least 40 g of I / 100 g, wherein said at least one polar nitrogen-containing compound B) is a terpolymer comprising:

I) 20 – 80 mol% of a divalent structural unit selected from the group consisting of formula 12[[.]] ~~44, 13, and mixtures thereof,~~



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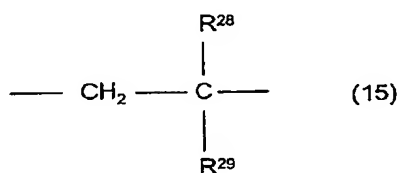
where

$R^{22}$  and  $R^{23}$ , independently of one another, are hydrogen or methyl,

$a$  and  $b$  are zero or one and  $a + b$  is one,

$R^{24}$  and  $R^{25}$  are identical or different and are  $[-NHR^6]$ ,  $N(R^6)_2$  or  $-OR^{27}$  or a combination thereof,  $R^{27}$  is a cation of the formula  $H_2N(R^6)_2$  [[or  $H_3NR^6$ ]] and  $R^6$  is  $C_8$ - $C_{36}$ -alkyl,  $C_6$ - $C_{36}$ -cycloalkyl or  $C_6$ - $C_{36}$ -alkenyl,[[.]]

II) 19 - 80 mol% of a divalent structural unit of formula 15



in

which

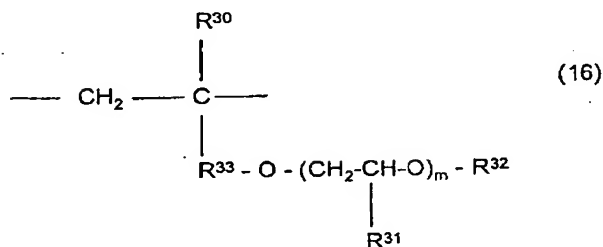
$R^{28}$  is hydrogen or  $C_1$ - $C_4$ -alkyl, and

$R^{29}$  is  $C_6$ - $C_{60}$ -alkyl or  $C_6$ - $C_{18}$ -aryl, and



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III) 1 - 30 mol% of a divalent structural unit of formula 16



in which

$\text{R}^{30}$  is hydrogen or methyl,

$\text{R}^{31}$  is hydrogen or  $\text{C}_1\text{--C}_4$ -alkyl,

$\text{R}^{33}$  is  $\text{C}_1\text{--C}_4$ -alkylene,

$m$  is a number from 1 to 100,

$\text{R}^{32}$  is  $\text{C}_1\text{--C}_{24}$ -alkyl,  $\text{C}_5\text{--C}_{20}$ -cycloalkyl,  $\text{C}_6\text{--C}_{18}$ -aryl or  $\text{---C(O)---R}^{34}$ ,

where  $\text{R}^{34}$  is  $\text{C}_1\text{--C}_{40}$ -alkyl,  $\text{C}_5\text{--C}_{10}$ -cycloalkyl or  $\text{C}_6\text{--C}_{18}$ -aryl.

12.(Previously Presented) The method of claim 11, wherein the additive further comprises an organic solvent selected from the group consisting of aliphatic hydrocarbon, aromatic hydrocarbon, oxygen-containing hydrocarbon, and mixtures thereof.

13.(Previously Presented) The method of claim 11, wherein component B comprises oil-soluble polar amine salts or amides.

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14.(Previously Presented) The method of claim 11, wherein component A) comprises from 1 to 40% by weight of resin acids.

15.(Previously Presented) The method of claim 11, wherein component A) comprises from 1 to less than 20% by weight of A1) and from greater than 80 to 95% by weight of A2).

16.(Previously Presented) The method of claim 11, wherein A1) and A2) are each a mono- or dicarboxylic acid having from 12 to 22 carbon atoms.

17.(Previously Presented) The low-temperature-stabilized solution of claim 7, wherein the organic solvent selected from the group consisting of aliphatic hydrocarbon, aromatic hydrocarbon, oxygen-containing hydrocarbon, and mixtures thereof.